

Work Order ID 124994

Wednesday, October 01, 2014 7:56:41 AM

D350-591-312
B124994
REV-B

124994

Page 1

Item ID: D350-591-312

Revision ID:

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

Required Date: 10/1/2014 Req'd Qty: 10.00

Reference:

Approvals: Process Plan: MJS

Date: (4-10-0)

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

N900040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw.Nbr

Revision Nbr

D3272

Rev B

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and type labels as per PPP D350-591-312 CHG001

DAS

46

9-89

DEC 30 2014

110

Large Fab

0.00

110

Large Fab

Memo

0.00

Large Fab

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg

D3272

A/R Aluminum Rod

128956

3-Grind End Plate flush

NOV 07 2014

DAS

24

9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY			
Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Wednesday, October 01, 2014 7:56:41 AM

124994

Item ID: D350-591-312

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Heli-Access-Step™ RH

Stop *NS2*

Start Date: 10/1/2014 **Start Qty:** 10.00

10

Cust Item ID:

Required Date: 10/1/2014 **Req'd Qty:** 10.00

10

Customer:

Reference:

Run Start *NR1*

Approvals: _____ **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120	QC9- Inspect visual per QSI004- Fusion Welds	0.00
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120

QC	Memo	0.00
----	------	------

Quality Control

10x **DAS**
43 NOV 07 2014
9-89

130	QC5- Inspect part completeness to step on W/O	0.00
-----	---	------

130

QC	Memo	0.00
----	------	------

Quality Control

10x DAS
43
9-89 NOV 07 2014

140	Chemical Conversion Coat per QSI005 4.1	0.00
-----	---	------

140

HandFinish	Memo	0.00
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Hand Finishing

10 of 14-11-12 DGC

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124994

Wednesday, October 01, 2014 7:56:41 AM

124994

Page 3

Item ID: D350-591-312

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/1/2014 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC7-Inspect Chemical Conversion Coat	0.00							
150									
QC	Memo	0.00							DAS 38 9-89
Quality Control									10-11-17
180		0.00							
180									
Large Fab	Large Fab	0.00							10
Large Fab	Memo								
	1-Assemble Leg Assembly as per Dwg D3272.								
	2-Leave one rivet out until welding is complete.								
	3-Bevel Aft end for welding								
	4-Inspect for foreign object as per QSI 024								
	5-Weld Aft End Plate as per QSI 004 & Dwg D3272 A/RAluminum Rod <u>128956</u>								
	6-Grind End Plate flush								
	7-Install last rivet as per Dwg.								

14.11.17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124994***124994***

Page 4

Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/1/2014 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00				(15)	14-11-19		DAS 9 9-89
200 *200* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(10)	14-11-19		DAS 9 9-89
210 *210* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.00				(16)	14-11-19	2034	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		
☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other		

Work Order ID 124994

124994

Page 5

Item ID: D350-591-312

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/1/2014 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00

220

Powdercoat

Powder Coating

Memo

START TIME: 3:25

OVEN TEMPERATURE: 320°

FINISH TIME: 4:05

10 of 14-20

DAS 34 9-89

230 Wing Walk as per dwg QSI005 4.4 Batch 11130780.00

230

HandFinish

Hand Finishing

Memo

0.00

10.134 of 14/11/20

240 QC3- Inspect Part Finish 0.00

240

QC

Quality Control

Memo

0.00

(10)

DAS 38 9-89

NOV 25 2014

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124994

124994

Page 6

Item ID: D350-591-312

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/1/2014 Req'd Qty: 10.00

10

Customer:

Reference:

Run Start

NR1

Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

250

Pick Kit

0.00

250

Packaging

Memo

0.00

Packaging

10x

DAS
28
9-89

JAN 07 2015

260

QC4- 100% Inspect kits for completeness

0.00

260

QC

Memo

0.00

Quality Control

DAS
46
9-89

DEC 30 2014

10

270

Packaging

0.00

270

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD350-591-312
Location: HALL

DEC 30 2014

DAS
66
9-89

DAS
46
9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 124994***124994***

Page 7

Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014 Start Qty: 10.00

10

Cust Item ID:

Required Date: 10/1/2014 Req'd Qty: 10.00

10

Customer:

Reference:

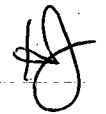
Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

15/1/6  15-1-5

Picklist Print

Wednesday, October 01, 2014 7:56:47 AM

Page 1

Work Order ID: 124994

124994

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A04.03.22New issue KJ/RF
 IPP Rev:B 07-06-09 Added D3572-1 JLM
 IPP Rev:C 08-04-02 ECN1163 DD verified by:EC
 IPP Rev:D 08-04-08 ECN1164 DD verified by:cC IPP Rev:D
 fixe route seq in bom DD 10.04.28 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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D3272-1		Manufactured	No			110	Each	4.0000	1	10			
D3272-1													
Step													

Location	Loc Qty	Loc Code
WA003	4	
115406	4	

D3067-1		Manufactured	No			110	Each	302.0000	1	10			
D3067-1													
End Plate													

Location	Loc Qty	Loc Code
WA003	302	
101785	67	
102686	14	
117776	71	
119290	150	

D3219-1		Manufactured	No			110	Each	116.0000	2	20			
D3219-1													
Plate													

Location	Loc Qty	Loc Code
WA003	116	
115339	53	
124869	63	

DL 14-10-29

B 124992 → 10

DL 14/10/29

10

DL 14/10/29

20

Picklist Print

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Page 2

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

D3066-1 Manufactured No

180 Each 44.0000 2 20

D3066-1

Spacer

**

DL 14/10/29

Location	Loc Qty	Loc Code
WA003	44	
106302	2	
115867	2	
115869	40	

20X

MS20600-AD4W4 Purchased No

180 Each 1,709.000 16 160

MS20600-AD4W4

Rivets

**

DL 14/10/29

Location	Loc Qty	Loc Code
ST310	1709	
125577	215	
M128899	1494	

160

D3065-041 Manufactured No

180 Each 32.0000 1 10

D3065-041

Step Leg Assembly

**

DL 14/10/29

Location	Loc Qty	Loc Code
WA003	32	
102830	6	
109447	2	
113075	2	
121478	2	
124225	20	

43

122273

—————> 67

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Page 3

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

D3067-1 Manufactured No

180 Each

302.0000 1 10

D3067-1

End Plate

**

Dh 14/10/29

Location

Loc Qty

Loc Code

WA003 302
101785 67
102686 14
117776 71
119290 150

10

AN3-35A

Purchased No

250 Each

133.0000 *2* 20

AN3-35A

Bolt

DAS
46
9-89

**

DAS
28
9-89

DEC 2 2 2014

Location

Loc Qty

Loc Code

FG 10
122800 10
ST348 123
m129934 23
m130466 100

20

D3235-1

Manufactured No

250 Each

243.0000 *2* 20

D3235-1

Mounting Lug

DAS
46
9-89

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST519 243
102818 4
105939 17
108670 41
114441 32
116383 100
116384 3
116385 46

20

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Page 3

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Page 4

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

D3278-041

Manufactured No

250 Each

49.0000

1 10

**

DAS
28
9-89

DEC 2 2 2014

D3278-041

Support Assembly

DAS
46
9-89

Location

Loc Qty

Loc Code

ST521

19

102349

1

114169

17

114940

1

ST523

30

123337

30

125102 x 8

2

NAS1149D0463J

Purchased

No

250

Each

4,397.000

16 160

**

DAS
28
9-89

NAS1149D0463.1

WASHER

DAS
46
9-89

Location

Loc Qty

Loc Code

CA

485

M129682

485

ST277

3912

16941

8

M126221

20

M127813

6

M127904

16

M128591

44

M128995

1500

M129390

2318

130799

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Page 5

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

NAS1149D0563J

Purchased

No

250

Each

1,619.000

4 40

DAS
28
9-89

DEC 22 2014

NAS1149D0563J

Washer

DAS
46
9-89

Location

Loc Qty

Loc Code

GA

125

m125807

125

ST510a

1494

m126319

98

m128257

1396

250

Each

216.0000

12 20

**

DAS
28
9-89

AN5-36A

Purchased

No

AN5-36A

Bolt

DAS
46
9-89

Location

Loc Qty

Loc Code

ST336

216

M126105

1

M127410

7

M127460

2

M130325

81

M130466

125

250

Each

93.0000

2 20

**

DAS
28
9-89

D2618

Manufactured

No

D2618

Bushing

DAS
46
9-89

Location

Loc Qty

Loc Code

ST008A

93

103863

3

114872

1

123045

87

97780

2

124350

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Page 6

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

D2230-3

Manufactured No

250

Each

234.0000

40

40

**

DAS
28
9-89

DEC 22 2014

DAS
28
9-89

D2230-3
Mounting Lug

DAS
46
9-89

Location

Loc Qty

Loc Code

FG

7

109344

4

89045

3

ST519

227

108668

1

109344

2

114151

1

114921

4

116378

143

116379

76

40

D2856-400

Manufactured No

250

f

172.0000

12

12

**

DAS
28
9-89

D2856-400
Abrasion Strip 4" Wide (Per Foot)

DAS
46
9-89

Location

Loc Qty

Loc Code

ST426

172

117887

172

12

cut (2) D2856-400-720 as per dwg

MS21042L3

Purchased No

250

Each

1,906.000

20

20

**

DAS
28
9-89

MS21042L3
Nut

DAS
46
9-89

Location

Loc Qty

Loc Code

ST307

1906

123900

934

M127410

11

M127831

41

M128401

42

M128754

878

130799

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Picklist Print

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Page 7

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

AN4-13A

Purchased

No

250

Each

528.0000

8

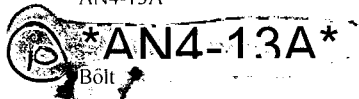
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DAS

28

9-89

DEC 2 2 2014



DAS
46
9-89

Location

Loc Qty

Loc Code

CA

2

m129682

2

FG

20

122808

20

GA

58

m125709

14

m128739

44

ST344

448

121652

4

m127432

36

m127817

22

m130325

386

130716

MS21042L5

Purchased

No

250

Each

1,075.000

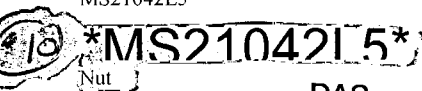
2

20

DAS

28

9-89



DAS
46
9-89

Location

Loc Qty

Loc Code

ST307

1075

125684

8

m127304

1

m127813

497

m128810

7

m129472

6

m130358

556

20

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Picklist Print

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Page 8

Work Order ID: 124994

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

124994

D350-591-312

Start Date: 10/1/2014

Required Date: 10/1/2014

Start Qty: 10.00

Required Qty: 10.00

MS21042L4

Purchased

No

250

Each

3,718.000

8

80

**

DAS
28
9-89

DEC 22 2014



MS21042L4

Locknut

DAS
46
9-89

Location

Loc Qty

Loc Code

ST007

12

121444

12

ST307

3706

111827

2

126275

5

m126015

12

m126275

27

m127255

63

m127376

9

m127813

821

m128300

69

m128798

658

m129472

540

m129934

1500

80

NAS1149D0363J

Purchased

No

250

Each

2,154.000

4

40

**

DAS
28
9-89



NAS1149D0363J

Washer

DAS
46
9-89

Location

Loc Qty

Loc Code

GA

7

124392

7

ST276

1005

m123441

5

m130358

1000

ST510a

1142

m128429

1142

126319

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Shop Packet Print

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DESIGN <i>GP</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED

07.06.04 *[Signature]*

△
B

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

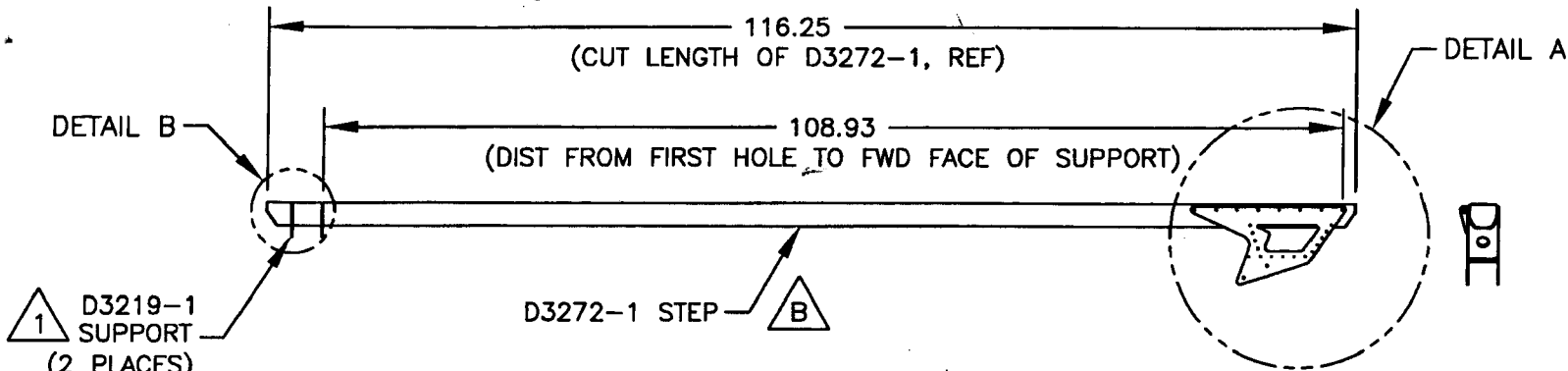
14-10-01
NO. 124647 MS
WORK ORDER
WITHOUT NOTICE
SUBJECT TO AMENDMENT
UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY

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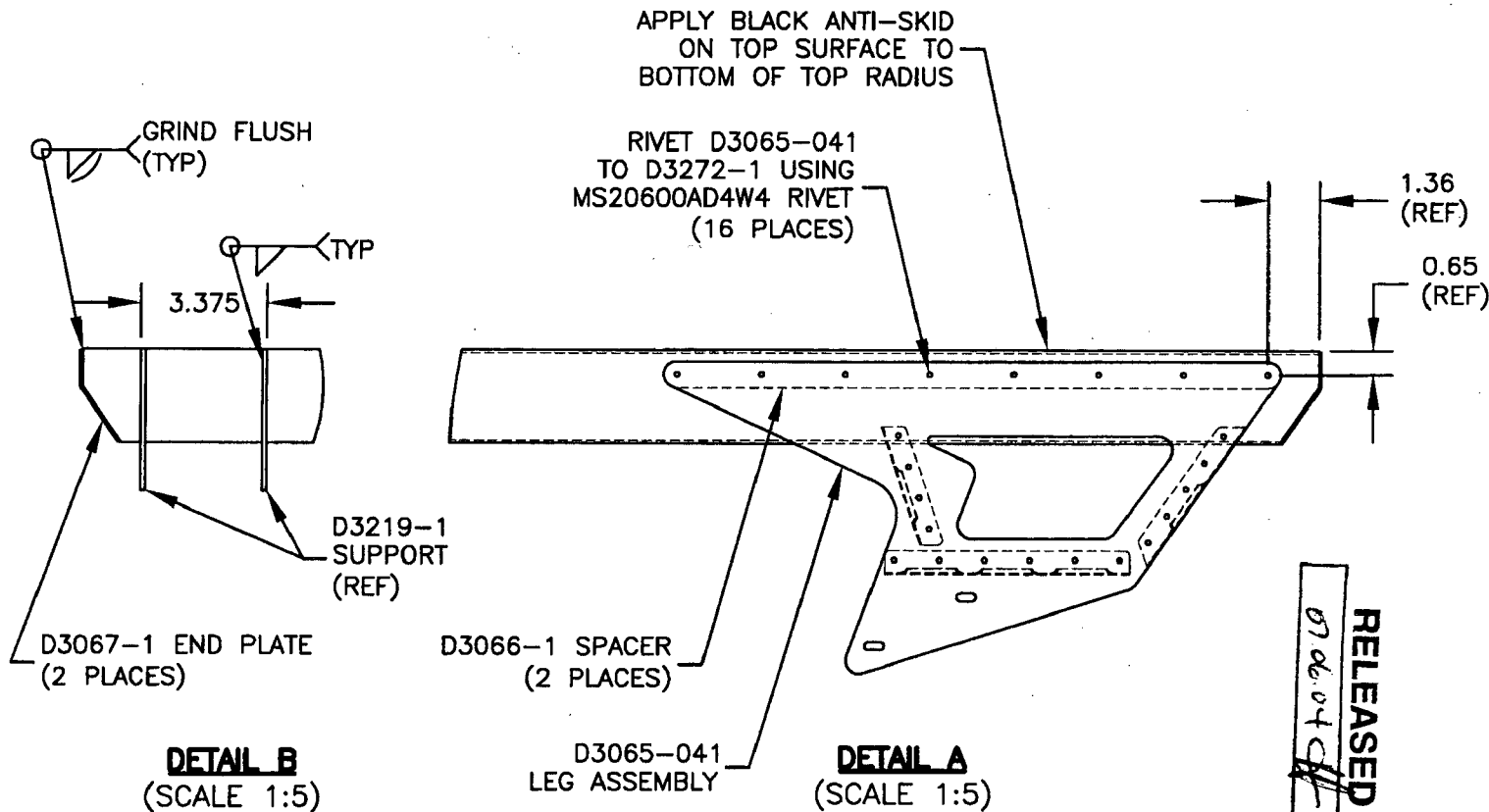
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DART

DESIGN	90	DRAWN BY	JR	DART AEROSPACE LTD
CHECKED	LE	APPROVED	MR	HAWKESBURY, ONTARIO, CANADA
DATE	07.05.18	TITLE	STEP ASSEMBLY, HI LONG	REV. B
				SHEET 2 OF 3
				SCALE 1:20



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)

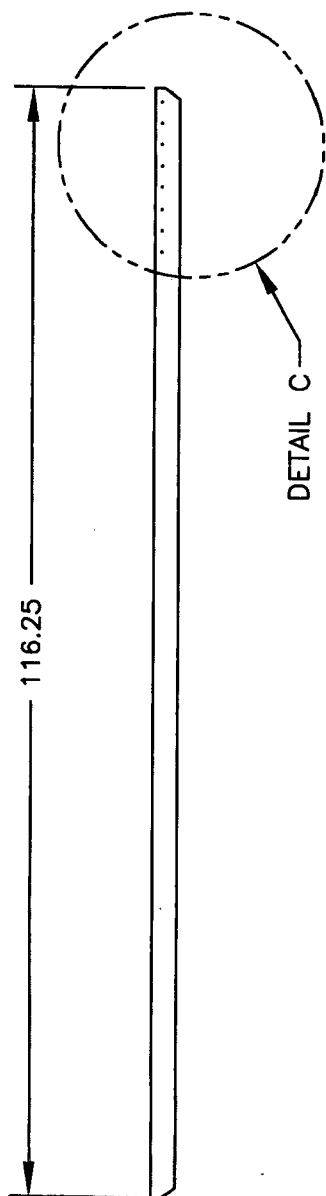




DESIGN <i>qp</i>	DRAWN BY <i>js</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>js</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

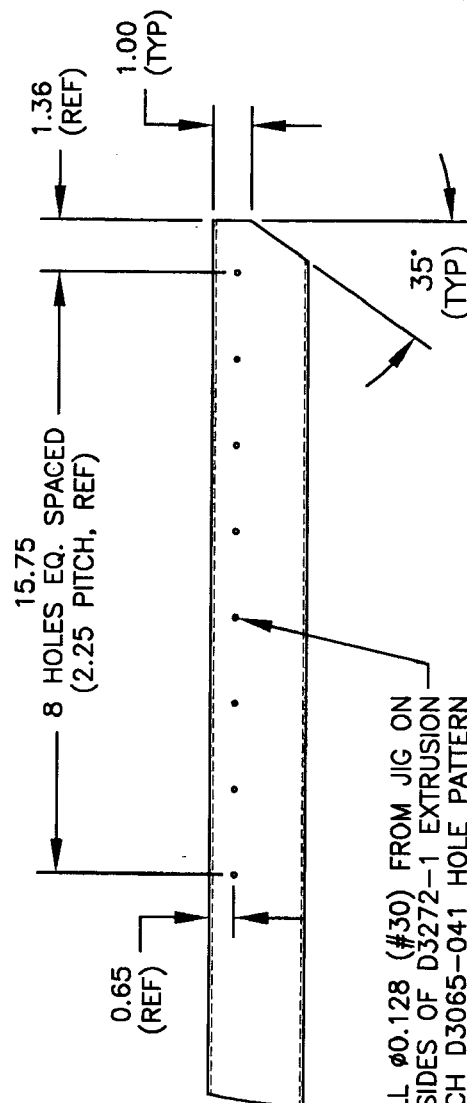
07.06.04 *js*



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DRILL $\phi 0.128$ (#30) FROM JIG ON BOTH SIDES OF D3272-1 EXTRUSION TO MATCH D3065-041 HOLE PATTERN

DETAIL C

(SCALE 1:5)

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REFERENCE ONLY

DEC 24 2014

DAS
46
9-89

DART AEROSPACE LTD.

D350-591
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Qty -211	Qty -212	Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X								D350-591-211	Heli-Access-Step™, Long Step – High Skid, LH
	X							D350-591-212	Heli-Access-Step™, Long Step – High Skid, RH
		X						D350-591-213	Heli-Access-Step™, Short Step – High Skid, LH
			X					D350-591-214	Heli-Access-Step™, Short Step – High Skid, RH
				X				D350-591-215	Heli-Access-Step™, Short Step – Low Skid, LH
					X			D350-591-216	Heli-Access-Step™, Short Step – Low Skid, RH
						X		D350-591-311	Heli-Access-Step™, Long Step – High Skid, LH
							X	D350-591-312	Heli-Access-Step™, Long Step – High Skid, RH
1								D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
	1							D3070-042	STEP ASSEMBLY (HIGH-LONG, RH)
		1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
			1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
					1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
							1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
4	4							D2182B035	RUBBER CUSHION
		2	2	2	2			D2230-1	MOUNTING LUG
		2	2	2	2	4	4	D2230-3	MOUNTING LUG
8	8							D2274	RADIUS BLOCK
						2	2	D2618	BUSHING
4	4	4	4	4	4			D2732-030	CUSHION
2	2	1	1	1	1	2	2	D2856-400-720	ABRASION STRIP
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	2	D3235-1	MOUNTING LUG
						1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	2	2	AN3-35A	BOLT
10	10	2	2	2	2			AN4-11A	BOLT
		4	4	4	4	8	8	AN4-13A	BOLT
						2	2	AN5-36A	BOLT
4	4	4	4	4	4	4	4	AN960JD10	WASHER
20	20	12	12	12	12	16	16	AN960JD416	WASHER
						4	4	AN960JD516	WASHER
2	2	2	2	2	2	2	2	MS21042L3	NUT
10	10	6	6	6	6	8	8	MS21042L4	NUT
						2	2	MS21042L5	NUT
						1	1	DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.